CALIFORNIA STATE BOARD OF HEALTH

MONTHLY BULLETIN

DECEMBER, 1913

No. 6



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THE CALIFORNIA STATE BOARD OF HEALTH.

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REGULAR MEETINGS.

The meetings of the California State Board of Health are held regularly the first Saturday of each month, but a quarterly meetings required by law to be held at the Capitol of the State are ordinarily designated as January, April, July, and October. By courtesy of the University of California the Food and Drug Laboratory and the Hygienic Laboratory are located in University buildings at Berkeley, California.

Address all communications to the

SECRETARY, Sacramento, California

MORBIDITY REPORTS.*

Their Importance to the Local Health Officer and His Work.

By John W. Trask, Assistant Surgeon General, United States Public Health Service. An address delivered before the First Annual Conference of Sanitary Officers of Arkansas, held at Little Rock, Ark., October 28-29, 1913.

The public health is second in importance only to the honesty and integrity of the people—if it is second to even these—for it is undoubtedly true that the honesty and integrity of a community or race depend in no small measure upon its health. Upon the health of a people depends also their prosperity. Modern life is in large measure competitive, and the sick can not hope to compete with advantage

against the well.

You, the local health officers of Arkansas, are the men upon whom depend in large measure the protection of the health of a state. You have a state department of health in charge of an able man who has made a study of health administration, but in the end he must depend largely upon you for whatever success may be attained in state health work. You are in reality a part of the machine that has for its work the prevention of disease in the State of Arkansas. As the health of each of your communities depends upon the health of all the individuals in them, so the health of the state depends upon the health of its various cities and counties. You are the men upon whom falls the duty and responsibility of preventing disease in your respective cities and counties. The state health department can not do it for you unless it displaces you and acts in your stead. You are essentially a part of the state health organization and must share in the credit for its successes and in the blame for any failures there may be. You have responsibilities to your respective communities, but your responsibilities to the state are just as great, for disease is no respecter of city or county boundaries, and the welfare of the state depends in a measure on health conditions in each of your cities and counties.

These statements apply not only to Arkansas and its local health officers, but to every state in the Union and to the local health officers

of every state.

The work of the state health department, and your work as part of the department, is the prevention of disease. In preventing or controlling any disease the first thing that must be done is to find whether the disease is present, where it is, and under what conditions it is occurring. This is true, whether the disease is yellow fever or malaria, smallpox or typhoid fever, trachoma or tuberculosis, ophthalmia neonatorum, or any of the industrial diseases.

The only way in which the health officer can learn when dangerous diseases are present and where preventable diseases are occurring is by having physicians report the cases they find. Physicians go into the houses of the sick and in that way brow what diseases are present. The health officer does not see all the sick as the physician does, and he must therefore depend upon the latter for his information as to what

^{*}This address by Assistant Surgeon General Trask is printed here because of its worth as a public health document and because of its value to health officers, to whom it is recommended for reading.

diseases are present, and where they are. The satisfactory control of diseases is impossible without the physician's co-operation in this way.

Every practicing physician is therefore a working part of the health department. He has a responsibility he can not avoid without doing injury to the community and likewise to the families to which he is the medical adviser, for these families are part of the community which suffer by his neglect. Practicing physicians are the skirmish line and the pickets of the health department, upon whom falls the duty of giving information of the presence of the enemy, the appearance in the community of cases of those diseases which it is the duty of the health department to control.

The work of the health officer has been undergoing a rapid change. Not so many-years ago the duties of the health officer were limited to attempts to control only the graver diseases which were occasionally epidemic, such as cholera, plague, and yellow fever. The work of the health department has changed and grown with the increased and more definite knowledge of the causes of disease which has been obtained during the last thirty years and to which additions are being constantly made.

Disease is now known not to be due to odors or decaying vegetation, to vapors from stagnant pools or to the breathing of sewer gas, nor to be punishment inflicted by a chastising God. Disease is known to be due either to living organisms which are spread from individual to individual by contact or by other means, or to improper conditions of living.

The work of the health officer is the prevention of disease in so far as we have knowledge as to how the disease can be prevented. His activities, therefore, are limited to the control of the preventable diseases, which is a broad field, due to our increased information regarding diseases and the manner in which they are spread.

In the control of disease the first thing the health officer must know is what diseases are present, where the cases are, and under what conditions they are occurring. Without this information he is prac-He can not control diseases unless he knows whether tically helpless. or not they are present, and when he knows what diseases are present he is still in large measure helpless until he knows where and under what conditions cases are occurring. If the community is to receive proper protection, the health officer must know of the occurrence and location of cases of the communicable diseases, for each case constitutes a focus from which the disease may spread to others. No one would attempt in this day and age to control scarlet fever in a town or city unless he had some means of knowing of the cases that were present, nor would he attempt to control diphtheria or yellow fever without information of existing cases. A knowledge of the occurrence of cases is just as necessary to the health officer in controlling typhoid fever or tuberculosis.

The necessity for a knowledge of the occurrence of cases in the prevention of disease is not limited to the communicable diseases. This knowledge is equally required in maladies due to improper living or working conditions. Many states are now attempting to prevent what are known as the industrial diseases and particularly the industrial poisonings, such as lead poisoning. To prevent these it is necessary to

have the cases that do occur reported, for each case so reported shows the existence of conditions capable of producing the disease, conditions that should be remedied and usually can be.

In fact, attempts at the control of any disease will be in large measure

ineffective unless based upon and controlled by case reports.

In health administration, morbidity reports—that is, reports of cases of sickness—serve several purposes, which may be briefly stated to be as follows:

1. In the communicable diseases morbidity reports show the occurrence of cases which constitute foci from which the disease may spread to others, as in scarlet fever, typhoid fever, tuberculosis or yellow fever, so that proper precautions can be taken to protect the family of the

patient, his associates, or the community at large.

2. In some diseases these reports make it possible to see that the sick receive proper treatment, as in ophthalmia neonatorum, diphtheria, and, in certain cities, tuberculosis. The reporting of cases of ophthalmia in the newborn makes it possible to save the sight of some infants who would otherwise not receive adequate treatment until after much damage had been done. In diphtheria the health department can be of service in furnishing antitoxin. Some cities furnish hospital or other relief to consumptives who would otherwise be without proper treatment.

3. In diseases that are not communicable, such as those due to occupation or environment, reported cases show the location of conditions which are causing illness or injury. This makes it possible to remedy the faulty conditions, so that others may not be similarly injured.

4. In certain diseases, of which the cause or means of spread is unknown, morbidity reports show their geographic distribution and varying prevalence, and the conditions under which cases occur. This information has great potential value in attempts to ascertain their

causes and means of spread.

5. Reports of the occurrence of disease are necessary to show the need of certain sanitary measures or works and to control and check the efficiency of such measures or works when put into operation. In pulmonary tuberculosis such reports show the number of consumptives in the community and the need of sanatoria. In malaria they show the prevalence of the disease, the need for drainage and other antimosquito work, the efficiency of such work when in operation, and when a change in the measures or additional ones are necessary. In typhoid fever they show faults in the water supply or in the control of the production and distribution of milk or in the disposal of excreta in special localities.

6. Morbidity reports when recorded over a period of time and properly compiled become a record of the past occurrence of disease. They show the relative prevalence of disease from year to year and under varying conditions. They show the effect of the introduction of public health measures and of sanitary works. They give a history of

disease not obtainable in their absence.

To do efficient work as health officers you will need to know at all times which of the preventable diseases are present in your respective communities, and how prevalent they are, and, when you get down to the work of really controlling any one of them, you will immediately want to know where the cases are.

The state has made it possible for you to have this information by requiring that physicians shall report to you all cases of certain diseases coming to their knowledge. The enforcement of this measure, however, in your respective counties and cities has been placed in your hands, so that you, and you alone, are to blame if the cases are not reported and you do not know at all times the status of these diseases within your jurisdictions. In securing these reports you will have the co-operation of every law-abiding or public-spirited physician practicing in your city or county. The people of the State of Arkansas have, through their legislature and state board of health, made it a misdemeanor for a physician to fail to report to you every recognized case of certain designated diseases among his patients, and have fixed as a penalty for such failure a fine of not to exceed \$100, or imprisonment for not to

exceed one month, or both fine and imprisonment.

This penalty is intended of course only for those who would not otherwise obey the law, and there should be few physicians requiring its application. Every intelligent physician will readily understand that these reports are necessary for the proper protection of his own patients as well as the community in general. He will also not want to be responsible for neglecting to report his cases of scarlet fever, diphtheria, and tuberculosis, for he will know that if others contract the disease from these unreported cases he is probably responsible, and not only responsible for the cases, but for any deaths there may be among them. Every physician has a number of families who look to him as their medical adviser. His failure to report a case of a communicable disease in one of these households may result in the infection being spread, directly or indirectly, to other households among his clientele. His own patients would therefore suffer by his neglect and he would be true neither to his patients nor to the community, besides being a criminal in the eyes of the law. He would be violating the spirit of his ethical code and his citizenship.

You should, and undoubtedly will, receive the sincere co-operation of every physician worthy of your respect, and we trust that there are none

otherwise in the State of Arkansas.

For the same reason that the practicing physician should report his cases of the notifiable diseases to you, you should report the cases occurring in your city or county to the state department of health. The state health department should at all times have information of the occurrence and relative prevalence of the preventable diseases throughout the state. If you fail to give this information to the state health department, you are as culpable as the physician who does not report his case to you. In fact you are probably more to blame, because you should more thoroughly realize its importance. It is only when the state department of health knows of the status of disease throughout the state that it can fulfill its proper functions. The reports received from the various cities and counties make it possible for your state health officer to know when there are threatened epidemics and to notify you, so that you can take necessary measures to protect your respective communities. It enables him to know when disease is unusually prevalent and when extraordinary measures are indicated. It enables him also to keep you informed, by printed bulletin or otherwise, of the prevalence of disease in your vicinity and throughout the state; for it is important in your work that you know of the prevalence

of disease in neighboring localities as well as in your own.

Your state health officer and you, as adjuncts of the state health department, will be interested in knowing of the occurrence of epidemics and the general prevalence of the preventable diseases in adjoining states. This will be of value in giving you early information of approaching epidemics, and will also enable you to compare the prevalence of disease in Arkansas with that in other states. For this purpose the health authorities of the several states in conference with the Federal Public Health Service adopted a plan whereby the state health departments that have the information report regularly to the Federal Public Health Service the reported prevalence of disease in their respective states. These reports are published in the public health reports and sent to all persons engaged in health work who request it.

In conclusion, allow me to repeat that the success of your administration and the amount of protection you are able to give to the health of your respective cities and counties will depend largely upon the extent to which you know what preventable diseases are present in your communities, their prevalence, and the conditions under which the cases are occurring; that this information can be obtained only through reported cases; and that it depends upon you more than anyone else as

to whether you will have this knowledge.

REPORT OF THE BUREAU OF ADMINISTRATION FOR NOVEMBER.

JOHN F. LEINEN, Director.

No matter what one's line of business, too much emphasis can not be placed upon the necessity of perfecting from the outset a thorough organization and system. If a health department would hold its own,

nowadays, it must pay the closest attention to these features.

The best results are obtained by departmental division, which has become a necessity and oftentimes not well understood, and means much more than a division of authority. It is necessitated by the fact that different methods of procedure in a state health department require widely varying experiences. One man may be better adapted for laboratory work, another for statistical work, and another for executive work, and so on. For this reason the division of a health department into bureaus is controlled by two elements, viz: The character of the labor employed and the nature of the work accomplished. In order to plan the proper division it is first necessary to classify the kinds of work for which it is held responsible and then arrange the division accordingly.

Departmental supervision is primarily concerned with arranging all the machinery for conducting a business, by appointing directors over the various bureaus so that they may form integral parts of the

machinery working in harmony.

Like all other forms of business the health department requires a single controlling head which is the pivot on which the department turns. For this important purpose the California State Board of Health has organized amongst its bureaus, the Bureau of Administration, which is the active head of the Department and is familiar with all the Board's work. It advises and instructs the various bureaus as to the general policy to be pursued by them. By means of reports received from them it controls and supervises the work.

In addition it acts as a clearing house of ideas.

The Bureau of Administration, which is composed of four divisions (Correspondence and Accounts; Permits, Complaints and Sanitary Reports; Legal Opinions and Prosecutions; Publications), controls the operation of the Department through six other bureaus under which are fifteen divisions, as follows:

1. Bureau of Tuberculosis.

Divisions: Inspection, Supervision and Rating of Institutions; Registration of Cases.

2. Bureau of Registration of Nurses.

Divisions: Examination and Registration of Nurses; Inspection of Hospitals and Training Schools.

3. Bureau of the Hygienic Laboratory.

Divisions: Biological Examinations; Preventive Therapeutics; Epidemiological Investigations.

4. Bureau of Foods and Drugs.

Divisions: Inspections; Laboratory Examinations; Food and Drug Standards.

5. Bureau of Sanitary Engineering.
Divisions: Sewage Disposal; Water Supplies; Camp Sanitation.

6. Bureau of Vital Statistics.

Divisions: Births, Marriages, Deaths; Morbidity Returns.

Big work must be done through organization, and the principal function of the Bureau of Administration is to increase the efficiency of the whole department, but of course any change made for improvement must pay for itself in saving in a comparatively short while.

Inefficiency is due to one of two causes: Either the proper methods have not been devised, or the system has not been lived up to. If the principles for production of efficiency are not used, high efficiency is impossible; if they are theoretically approved, but not applied, high efficiency is also impossible. If there is evidence of inefficiency in a health department, the first step is to find out where the trouble lies, next to set up standards; then to insist on the use of the principles.

In a great many cases it is not because men do not work hard that their efficiency is low, but because they are poorly directed and work under adverse conditions. The ordinary man, if not instructed but left to himself, seldom performs any operation in the manner most econom-

ical either of time or labor.

REPORT OF THE BUREAU OF TUBERCULOSIS FOR NOVEMBER.

BURT F. HOWARD. M.D., Director.

A circular letter has been mailed to each Health Officer in the State with the morbidity report blanks calling attention to the law of 1907 which includes tuberculosis with other reportable diseases. Those Health Officers who are already reporting tuberculosis were requested to offer suggestions as to methods of making the registration of tuberculosis complete. Some of the replies are very interesting as evidence of an awakening to the need of the measure as a first step in state-wide prophylaxis.

Here are a few of the suggestions:

"That the State Board recommend to the city councils that they pass ordinances for registration of the tuberculous, with a penalty for failure to report."

These ordinances exist in some cities, but do not enforce themselves. There must be an enlightened public sentiment established first, which is the power behind the throne.

"A letter to each physician in the State from the State Board of Health demanding a complete report to local Health Officers" or "explaining the law and urging them to be prompt and regular."

Circular letters of this kind are expensive and bring rather poor returns, partly because they are not read and partly because they are disregarded.

"See that Health Officers are appointed who will do their duty" and "report them to their trustees or supervisors if they are neglectful."

The first part of this proposal would be more difficult than the last, but either plan might give some surprising results.

It is also suggested that doctors be urged to make a list of all cases known to exist at present and submit this at once, then as new cases are diagnosed to report them promptly to the local Health Officer.

It is very true that many physicians have no knowledge of the existence of the law making tuberculosis reportable and that others who know that contagious and infectious diseases should be reported have never had their attention called to the fact that tuberculosis is infectious. For this reason it seems desirable to make use of every available means toward the education of physicians on this subject.

A number of personal letters have been written to Health Officers where it seemed probable they would be effective, officers being urged to devise their own means for accomplishing results according to local conditions. Other plans proposed in last report have been carried out so far as practicable.

In order to have a complete list of all hospitals which treat tuberculosis, a circular letter has been sent to every known hospital in California, making inquiry as to the number of beds reserved for pulmonary tuberculosis and as to whether other forms of tuberculosis are treated. Two hundred and fifty-two of these questionnaires have seen sent out, replies having been received this far from 137 hospitals. Eighty-six of these receive no pulmonary tuberculosis and 10 more receive them only pending diagnosis or as transients in emergencies. The remaining

41 have from 1 to 100 beds, or assign beds as needed.

The only institution visited during the month was the county hospital at Auburn. Tuberculosis has not been considered here as a problem distinct from general diseases, there being found but one patient who had just entered the general ward. The newly appointed medical superintendents were requested to give this matter especial attention.

REPORT OF BUREAU OF REGISTRATION OF NURSES FOR NOVEMBER.

Anna C. Jammé, R.N., Director.

The organization work of the Bureau is advancing steadily. Data concerning the present status of training schools in California is being placed on file with a view of presenting, at an early date, an outline of requirements for accrediting the schools for nurses under the law. It is most gratifying to note the co-operation of many of the hospitals in desiring to place their schools on the standard required by the law and to prepare their graduates for examination and registration.

Requests for the certificate as registered nurse are received with every mail. One hundred and sixty-four papers and credentials have up to this time been examined and await the approval of the Board before the certificate will be issued. These are nurses who hold a diploma of a reputable training school connected with a general hospital, and are exempt from examination under the provision of the law.

After July 1, 1914, all applicants must be graduated from an accred-

ited training school, and will be subject to examination.

REPORT OF THE BUREAU OF THE HYGIENIC LABORATORY FOR NOVEMBER.

WILBUR A. SAWYER, M.D., Director.

Rabies in Alameda County.

A sharp epidemic of rabies prevailed among the dogs of Alameda County, principally in Oakland and Berkeley, from August to November. The epidemic reached its height in October, when examinations of the brains of animals in the laboratory of the Oakland Health Department and in the State Hygienic Laboratory gave proof of the presence of the disease in 80 animals. During the four months of the epidemic the same laboratories found positive evidence of rabies in 159 of the heads sent from Alameda County.

An epidemic of rabies could not reach such proportions without endangering a large number of people. Many of those who were bitten secured the Pasteur preventive treatment from their physicians, and 55 persons from Alameda County received the treatment free at the State Hygienic Laboratory. The majority of these patients were bitten during October, the month in which the largest number of dogs came down with rabies. No human cases have occurred in the county, and we hope that all who needed the Pasteur treatment received it and were successfully immunized. The incubation period of rabies is so long that it will be some time before it is safe to conclude that no human deaths will result from the epidemic in dogs.

During October and November vigorous efforts were made in Oakland and Berkeley to enforce muzzling ordinances. The result was a rapid diminution during November in the prevalence of rabies among dogs, and in the number of persons bitten.

Cases Simulating Plague at Kennett.

Two cases resembling plague were reported from Kennett on November 7th. Special apprehension was felt regarding these cases as they were far outside the part of the State where bubonic plague was known to exist among the ground squirrels. The cases were investigated jointly by Surgeon Donald H. Currie of the United States Public Health Service and the Director of the State Hygienic Laboratory. The patients showed axillary buboes and prostration. Bacteriological examination of the contents of the bubo of one of the patients showed absence of the plague bacillus and the presence of Streptococcus pyogenes. This ruled out bubonic plague.

Epidemic Poliomyelitis in Humboldt County.

In October and the first half of November an outbreak of epidemic poliomyelitis (infantile paralysis) occurred in Humboldt County, involving Eureka and the surrounding towns. The director of the laboratory investigated the situation in November and visited many of the cases. The diagnosis of the outbreak was confirmed, as 18 of the 22 cases seen showed characteristic localized muscular weakness or paralysis. A careful study of the disease is being made with regard to its method of spread in the hope that effective preventive measures will soon be devised.

Division of Biological Examinations.

Summary of Examinations Made in the California State Hygienic Laboratory During the Month of November, 1913.

Condition suspected	Positive	Negative	Inconclusive	Total
Main Laboratory at Berkeley:				
Anthrax		8		8
Diphtheria	40	38	2	80
Gonococcus infection	. 12	8		20
Malaria		8		
Plague		$\tilde{2}$		8
Rabies		3		25
Tuberculosis	3	13		16
Typhoid		23		25
Water pollution		23	1	8
Miscellaneous		2	1	
Miscerianeous	. 0	4	1	
			*)	198
Northern Branch at Sacramento:				
Diphtheria	. 11	16		27
Malaria		1		1
Tuberculosis	. 3	6		9
Typhoid	6	4	1	11
			-	
				48
San Joaquin Valley Branch at Fresno:				
Diphtheia	5	14	2	21
Tuberculosis				
Typhoid		$\frac{2}{3}$		2
1, photo				
	1			26
Southern Branch at Los Angeles:				-
Diphtheria	17	24	3	44
Hookworm		2	0	-
Tuberculosis		1		
Typhoid		3		
Typhold		0		1
				52
	3		=	
Total number of examinations				324

Division of Preventive Therapeutics.

Pasteur Treatment for the Prevention of Rabies by the State Hygienic Laboratory
During the Month of November, 1913.

	Treatment commenced	Treatment completed
Main Laboratory at Berkeley	9	21
Northern Branch at Sacramento	3	0
San Joaquin Valley Branch at Fresno	0	0
Southern Branch at Los Angeles	2	1
Laboratory of Sacramento Board of Health, by deputized		
bacteriologist	0	1
Laboratory of San Francisco Board of Health, by deputized		
bacteriologist	3	
Laboratory of Los Angeles Board of Health, by deputized		
bacteriologist	0	(
Laboratory of Letterman General Hospital, Presidio, by		
deputized bacteriologist	0	(
as parties and the control of the co		
	17	28

Public Health Instruction.

Participation in Instruction in Public Health During November, 1913. Main Laboratory at Berkeley: Bacteriological instruction outfits sent out Bacteriological instruction outfits in use Lectures or talks by the Director	30
Division of Epidemiological Investigations.	
Epidemiological Investigations During November, 1913. Main Laboratory at Berkeley: Special investigations by the Director	20
Special investigation by the Chief Bacteriologist	

REPORT OF BUREAU OF FOODS AND DRUGS FOR NOVEMBER.

M. E. JAFFA, Director.

The work of the State Laboratory during the past month has been devoted to the usual routine of the examination and analysis of food and drug supplies submitted by inspectors and state institutions.

In the last Bulletin a reference was made regarding the necessity of

the proper labeling of vinegars.

It is encouraging to report that there is evidenced among the manufacturers and dealers a spirit of co-operation with the State Board of Health in the proper enforcement of Food Inspection Decision No. 140. Nearly every manufacturer has been more than willing to modify the label so as to conform to the law whenever the matter has been drawn to his attention.

The laboratory has devoted some time to the analysis of some table waters sold around the bay region. The examination of these waters is being undertaken for the purpose of ascertaining whether or not the claims made on the label can be substantiated by analysis. The work has not proceeded far enough to warrant publication.

The rules and regulations which have been officially adopted by the State Board of Health in connection with the enforcement of the provisions of the Cold Storage Act, Chapter 360, are herewith printed for

the guidance of those interested.

Regulations Governing the Business of Cold Storage, Made Under the Provisions of Chapter 360 of the Acts of 1913.

REGULATION 1.

That certain act entitled "An act relating to cold storage, the regulation of refrigerating warehouses, the disposition or sale of food kept or served therein, and defining the duties of the State Board of Health in relation thereto," approved June 13, 1913, for the purpose of these regulations shall be known and may be referred to as "The California Cold Storage Act."

REGULATION 2.

The term "Public Cold Storage Warehouse or Refrigerating Warehouse" will be held to mean any establishment which offers to or does accept or receive for storage for a compensation any article of food, as defined by the California Cold Storage Act, from one or more persons, firms or corporations, besides the owner, and which employs refrigerating machinery or ice for the purpose of refrigeration in which such foods are stored at a temperature of 40° Fahrenheit, or below.

REGULATION 3.

Articles of food intended for cold storage shall, when they are offered for or placed in cold storage, be enclosed in boxes, barrels, crates or other packages sufficiently strong to protect them from injury, unless the articles are of such a character that it is impracticable to pack them in containers.

REGULATION 4.

Section 1. When articles of food contained in packages are placed in cold storage, each package shall be legibly marked in black, purple

or red ink as follows: "Received" followed by the day, months and year when such articles were received in storage.

Whenever tags are used on which to mark dates, they must be so securely fastened to the article to which they are affixed that they can not become detached.

Section 2. When articles of food not contained in packages are placed in cold storage they must have, securely fastened to them, tags or labels in accordance with section 1 of this regulation.

When it is found to be impracticable to mark each individual article, said article may be stored in stacks or piles, and an appropriate tag attached to them indicating the date on which they were received in cold storage.

Section 3. All letters or figures required by these regulations must be in plain type not less than three eighths of an inch in height.

Section 4. The word "Received" may be written "Rec'd," and figures separated by hyphens may be used to indicate dates and will be regarded as sufficient date if following the word "Rec'd." The last two figures indicating the year when such foods were placed in storage may be used, e. g.: "Received September 1, 1912," may be written: "Rec'd 9-1-12," or "Delivered September 1, 1913," may be written: "Del'd 9-1-13."

REGULATION 5.

Articles of food already held in cold storage September 1, 1913, shall be legibly marked whenever possible with date of receipt. When it is not possible to ascertain the exact date of receipt the approximate date should be legibly marked in accordance with Regulation 4.

REGULATION 6.

When articles of food have been kept in cold storage for twelve calendar months, report of such fact shall be made to the State Board of Health by the persons having custody of such articles, and such articles shall not be removed from cold storage by the owners until they have been inspected by the agents of the State Board of Health, and released by order of the Board. Requests should therefore be made at least two weeks before the statutory time limit for storage has expired.

REGULATION 7.

For the purpose of facilitating the removal of articles of food from cold storage at the expiration of the statutory period of twelve calendar months, persons operating cold storage warehouses shall, at least fifteen days before such twelve months have elapsed, notify the owners of all articles of food stored by them of the date when such articles will have been in storage twelve months.

REGULATION 8.

Requests for permission to store food for a longer period than twelve calendar months must be made by the owners thereof to the State Board of Health, upon blanks which will be furnished by the Board upon application.

Regulation 9.

Articles of food, except eggs and butter, which are held at low temperatures for temporary protection only, for periods less than thirty days, will not, for the purposes of the California Cold Storage Act, be regarded as being held in cold storage, but such articles shall be kept

separate from articles intended for cold storage, and be appropriately marked with date of original entry.

REGULATION 10.

The sign "These Are Cold Stored Goods," required by section 9, California Cold Storage Act, shall be plainly printed in black letters in type at least two inches high, upon a white background, no other lettering to appear on, or to be attached to, this sign.

REGULATION 11.

In every case where articles of food shall be ordered or purchased by persons by telephone, telegraph, through the United States mails, and in every other case where the buyer is not personally present at the place of sale, the seller shall attach to such articles of food and deliver to the buyer thereof a statement bearing the printed words, in type at least two inches high, "These Are Cold Stored Goods," or in lieu thereof may write, print or stamp on the bill accompanying the delivery of such goods, and opposite the cold storage articles of food on such bill, the words "These Are Cold Stored Goods."

REGULATION 12.

When articles of food, held in cold storage, are removed from the packages in which they were contained and placed in other packages, the date of original entry into cold storage of such articles shall be placed upon the containers into which they have been transferred; and if articles of food which were placed in cold storage on different dates are packed in the same container, the date of storage of the article longest stored shall be placed upon the container to which such articles have been transferred.

REGULATION 13.

Any article of food which has, while in storage, deteriorated in any way, so as to render it unfit for food, must either be destroyed or isolated and plainly marked "Not for Food" in black letters not less than three eighths of an inch in height on a white background. A careful record of the disposition of such article or articles of food shall be kept by the party or parties operating the refrigerating warehouse, which record shall form part of the regular quarterly report to the State Board of Health.

REGULATION 14.

Any article of food not intended for use as food, shall be plainly marked by the owner when deposited in cold storage with a stamp or label reading as follows: "Not for Food," followed by the day, month and year when such article was received in storage. The letters and figures on the stamp or label shall be not less than three eighths of an inch in height and plainly indicated in accordance with Regulation 4.

REGULATION 15.

Shell eggs are to be reported in terms of cases and dozens, all other articles to be reported as by package or weight or numerical count, and in so far as the same is practicable, by both package and weight.

REGULATION 16.

The floors, halls, walls, ceilings, furniture, receptacles, implements and machinery of every cold storage or refrigerating warehouse shall be kept in a clean, healthful and sanitary condition; and, for the purpose of the California Cold Storage Act, unclean, unhealthful or insani-

tary conditions shall be deemed to exist if the food stored is not securely protected from flies, dust, dirt, insects and from all foreign or injurious contamination.

REGULATION 17.

No employer shall knowingly require, permit or suffer any person to work, nor shall any person work, in a cold storage or refrigerating warehouse who is affected with any infectious or contagious disease.

REGULATION 18.

Toilet rooms shall be separate and apart from the rooms in which food is stored; cuspidors for the use of employees must be washed daily with disinfectant solution.

REGULATION 19.

These regulations shall become effective immediately after the date of their adoption by the California State Board of Health without any further notice, and shall remain operative until revoked or amended by said Board. They may be revoked, amended, or added to, at any time and from time to time, without previous notice, by said Board of Health. at any meeting thereof.

Notices of Judgments.

The following list of Notices of Judgments is at hand from the Department of Agriculture, at Washington, and interested parties wishing any separate notice should address the Director of the State Food and Drug Laboratory, University of California, Berkeley, Cal.:

No. 2550-Misbranding of Headache Capsules.

No. 2551—Adulteration and Misbranding of Feed Stuff. No. 2552—Adulteration of Essence of Cinnamon, Essence of Peppermint, and Extract of Vanilla.

No. 2553—Adulteration and Misbranding of Vinegar. No. 2554—Misbranding of Drug Habit Cure. No. 2555—Adulteration of Tomato Pulp.

No. 2556—Adulteration of Sardines. No. 2557—Misbranding of Whisky.

No. 2558—Adulteration and Misbranding of Peroxide of Hydrogen and Alleged Adulteration and Misbranding of "Marchand's Peroxide of Hydrogen."

No. 2559—Misbranding of So-called Lemon Extract. No. 2560—Misbranding of Cheese.

No. 2561—Adulteration of Catsup.

No. 2562—Adulteration of Chinese Walnuts. No. 2563—Adulteration of Tomato Catsup.

No. 2564—Adulteration and Misbranding of Shredded Cocoanut. No. 2565—Misbranding of Celery-Vesce.

No. 2566-Adulteration of Milk and Cream. No. 2567—Misbranding of Eau de Quinine Hair Tonic.
No. 2568—Adulteration and Misbranding of Rice.
No. 2569—Misbranding of Temperine.
No. 2570—Adulteration and Misbranding of Maple Syrup.

Misbranding of Cottonseed Meal.

No. 2572—Adulteration of Olive Oil.

REPORT OF BUREAU OF VITAL STATISTICS.

GEORGE D. LESLIE, Director.

L. V. BOYLE, Births, Deaths, Marriages.

G. P. Jones, Morbidity Reports.

BIRTHS, DEATHS AND MARRIAGES FOR OCTOBER.*

State Totals and Annual Rates.—The following table shows for California as a whole the birth, death and marriage totals for the current and preceding months in comparison with those for the corresponding months of last year, as well as the annual rates per 1,000 population represented by the totals for the current and preceding months. The rates are based on an estimated midyear population of 2,671,491 for California in 1913, the estimate having been made by the Census Bureau method with slight modifications.

Birth, Death and Marriage Totals, with Annual Rates per 1,000 Population for Current and Preceding Months for California: October.

Manale .	Monthly	Annual rate per 1,000		
Month	1913	1912	population 1913	
October—				
Births	3,922	3,352	17.3	
Deaths	3,085	2,992	13.6	
Marriages	2,913	2,907	12.8	
September—				
Births	3,773	3,413	17.2	
Deaths	2,788	2,630	12.7	
Marriages	2,831	2,797	12.9	

The October birth total was much greater in 1913 than in 1912, and the monthly death total was also somewhat greater this year than last, while the October marriage total was about the same each year.

County Totals.—The first table which follows below shows the monthly birth, death and marriage totals for the principal counties of the State, the list being limited to counties having a population of at least 25,000 according to the Federal Census of 1910. Totals are also shown for San Francisco and the other bay counties (Alameda, Contra Costa, Marin, and San Mateo), as well as for Los Angeles and Orange counties together.

City Totals.—The second of the following tables gives the birth and death totals for the principal freeholders' charter cities, the list including all chartered cities with a census population of at least 15,000 in 1910. Totals are given likewise for San Francisco in comparison with Oakland, Alameda, and Berkeley, the three cities adjoining one another on the east shore of San Francisco Bay, as well as for Los Angeles in comparison with neighboring chartered cities (Long Beach, Pasadena, Pomona, and Santa Monica).

^{*}Note.—The present report is for the month preceding, but one. This order must be followed hereafter because of the publication of the Bulletin during the early part of the month, before the tabulation of records for the preceding month is completed.

Birth, Death and Marriage Totals for Principal Counties: October.

County		October, 1913				
County	Births	Deaths	Marriages			
California	3,922	3,085	2,913			
Counties of more than 25,000 population (1910):						
Alameda	417	279	288			
Butte	68	30	15			
Contra Costa	73	19	26			
Fresno	148	105	87			
Humboldt	28	42	21			
Kern	37	31	38			
Los Angeles	987	700	714			
Marin	34	28	62			
Orange	95	55	111			
Riverside	45	41	31			
Sacramento	155	99	109			
San Bernardino	88	92	52			
San Diego	140	106	103			
San Francisco	692	622	598			
San Joaquin	73	77	78			
San Mateo	38	38	41			
Santa Barbara	30	23	34			
Santa Clara	124	109	92			
Santa Cruz	34	27	31			
Solano	36	32	1:			
	51	60	49			
Sonoma	49	26	25			
Tulare	49	20	2			
Selected groups:						
San Francisco and other bay counties	1,254	986	1,013			
Los Angeles and Orange counties	1,082	755	82			

Birth and Death Totals, for Principal Cities: October.

	October	, 1913
City	Births	Deaths
Freeholders' charter cities	2,461	1,869
Cities of more than 15,000 population (1910):		
Alameda	34	15
Berkeley		36
Fresno		44
Long Beach		30
Los Angeles		441
Oakland	0.10	160
Pasadena		34
Riverside		19
Sacramento	101	82
San Diego		79
San Francisco	200	622
San Jose	40	34
Stockton	0.0	38
Selected groups:		
San Francisco	692	622
Oakland, Alameda and Berkeley	367	211
Totals, bay cities	1,059	833
Los Angeles	673	441
Neighboring cities		78
Totals	793	519

Causes of Death.—The following table shows the classification of deaths in California in the current month, in comparison with the preceding month:

Deaths from Certain Principal Causes, with Proportion per 1,000 Total Deaths, for Current and Preceding Months, for California: October.

Cause of death	Deaths:	Proportion per 1,000		
Cause of death	October	October	September	
All Causes	3,085	1,000.0	1,000.0	
Typhoid fever	52	16.9	16.9	
Malarial fever	7	2.3	4.7	
Measles	7	2.3	0.4	
Scarlet fever	1	0.3	2.5	
Whooping-cough	4	1.3	3.6	
Diphtheria and croup	19	6.2	6.1	
Influenza	4	1.3	1.4	
Plague			0.4	
Other epidemic diseases	9	2.9	3.2	
Tuberculosis of lungs	380	123.2	118.7	
Tuberculosis of other organs	62	20.1	21.5	
Cancer	217	70.3	66.0	
Other general diseases	137	44.4	41.2	
Meningitis	33	10.7	9.7	
Other diseases of nervous system	246	79.7	81.8	
Diseases of circulatory system	489	158.5	158.9	
Pneumonia and broncho-pneumonia	191	61.9	45.5	
Other diseases of respiratory system	71	23.0	16.1	
Diarrhea and enteritis, under 2 years	157	50.9	56.3	
Diarrhea and enteritis, 2 years and over	39	12.6	11.	
Other diseases of digestive system	175	56.7	49.9	
Bright's disease and nephritis	178	57.7	70.3	
Childbirth	36	11.7	12.5	
Diseases of early infancy	115	37.3	42.	
Suicide	69	22.4	23.	
Other violence	246	79.7	91.8	
All other causes	141	45.7	43.4	

In October there were 489 deaths, or 15.9 per cent of all, from diseases of the circulatory system, and 442, or 14.3 per cent, from various forms of tuberculosis. Heart disease thus led tuberculosis for October as for previous months.

Other notable causes of death in October were: Diseases of the digestive system, 371; violence, 315; diseases of respiratory system, 279; diseases of respiratory system, 262; cancer, 217; Bright's disease and

nephritis, 178; and epidemic diseases, 103.

The deaths from epidemic diseases were as follows: Typhoid fever, 52; diphtheria and croup, 19; malarial fever, 7; measles, also 7; and all other epidemic diseases, 18.

The deaths from the four leading epidemic diseases reported for the month were distributed by counties as follows:

Malarial fever
3 Butte 1
1 Calaveras
1 Kings 1
2 Placer
5 Tehama 3
1
1 Total 7
3
1 Measles
1 Marin 1
- Orange 1
19 San Francisco 1
Siskiyou 3
Tulare1
Total 7

Geographic Divisions.—The following table presents data for geographic divisions, including the metropolitan area, or San Francisco and the other bay counties (Alameda, Contra Costa, Marin, and San Mateo), in comparison with the rural counties of Northern and Central California:

Deaths from Main Classes of Diseases, for Geographic Divisions: October.

					Deat	hs: Oct	tober				
Geographic division	All causes	Epidemic diseases	Tuberculosis (all forms)	Cancer	Diseases of nervous system	Diseases of circulatory system	Diseases of respiratory system	Diseases of di- gestive system_	Bright's disease and nephritis.	Violence	All other causes
THE STATE	3.085	103	442	217	279	489	262	371	178	315	429
Northern California	347	16	29	14	45	54	26	38	16	50	59
Coast counties	182	6	18	10	· 26	35	14	25	8	18	. 22
Interior counties	165	10	11	. 4	19	19	12	13	8	32	37
Central California	1,684	56	233	121	132	285	168	215	87	170	217
San Francisco	622	11	80	43	53	128	66	71	34	71	63
Other bay counties	364	9	42	24	24	61	47	52	21	31	53
Coast counties	195	5	34	12	22	38	17	23	6	13	2
Interior counties	503	31	77	42	33	58	38	69	26	55	74
Southern California	1,054	31	180	82	102	150	68	118	75	95	158
Los Angeles	700	19	127	57	64	100	47	66	52	64	104
Other counties	354	12	53	25	38	50	21	52	23	31	49
Northern and Central									1		
California	2,031	72	262	135	177	339	194	253	103	220	276
Metropolitan area	986	20	122	67	77	189	113	123	55	102	118
Rural counties	1,045	52	140	68	100	150	81	130	48	118	158

Sex and Age Periods.—The proportion of the sexes among the 3,085 decedents in October was: Male, 1,916, or 62.1 per cent; and female, 1,169, or 37.9 per cent.

The following table shows the age distribution by numbers and per cents of deaths classified by sex:

Deaths Classified by Sex and Age Periods, with Per Cents by Age Periods, for California: October.

Age period		Deaths Per cent			Per cent		
Age period	Total	tal Male Female		Total	Male	Female	
All ages	3,085	1,916	1,169	100.0	100.0	, 100.0	
Under 1 year	393	226	167	12.7	11.8	14.3	
1 to 4 years	133	59	74	4.3	3.1	6.3	
5 to 14 years	74	43	31	2.4	.2.2	2.7	
15 to 24 years	192	118	74	6.2	6.2	6.3	
25 to 34 years	299	185	114	9.7	9.7	9.8	
35 to 44 years	381	253	128	12.4	13.2	11.0	
45 to 54 years	369	234	135	12.0	12.2	11.5	
55 to 64 years	371	255	116	12.0	13.3	9.9	
65 years and over	873	543	330	28.3	28.3	28.2	

This table shows that relatively more females than males died at the age periods under 35 years, while relatively more males than females, generally speaking, died at the age periods above 35 years.

Occupations.—The table below gives, for deaths 15 years and over, the number of men and women for whom some occupations were reported in contrast with those for whom no gainful occupation was shown.

Deaths, 15 Years and Over, Classified by Sex and Occupation, with Per Cents by Sex, for California: October.

	Deaths		Per cent	Per cent	
	Total	Male	Female	male	female
15 years and over	2,485	1,588	897	63.9	36.1
Occupation reported No gainful occupation	1,450 1,035	1,348 240	102 795	93.0 23.2	7.0 76.8

Of the 1,450 decedents for whom occupations were reported the males numbered 1,348, or 93.0 per cent, and the females only 102, or 7.0 per cent.

The following table shows the distribution of male decedents 15 years and over, engaged in the main kinds of occupation:

Deaths of Males Fifteen Years and Over Engaged in Gainful Occupations, Classified by Kind of Occupation, with Per Cents, for California: October.

	Males 15 years and over	
Kind of occupation	Deaths	Per cent
All occupations	1,348	100.0
Professional Clerical and official Mercantile and trading Public entertainment	73 106 103 29	5.4 7.9 7.6 2.2
Personal service, police and military Laboring and servant Manufacturing and mechanical industry Agriculture, transportation and other outdoor pursuits All other occupations	35 304 250	2.6 22.6 18.5 32.7 0.5

Of the 1,348 male decedents for whom occupations were reported, 441, or 32.7 per cent, were engaged in agriculture, transportation, and other outdoor pursuits; 304, or 22.6 per cent, in laboring and servant work; 250, or 18.5 per cent, in manufacturing and mechanical industry; and altogether 353, or 26.2 per cent, in professional, clerical and official, mercantile and trading, and all other occupations.

It should be noted that the figures on deaths occurring in different occupations are necessarily affected by the fact that in California a large number of men are engaged in agriculture and other outdoor pursuits, while relatively few follow professional and similar occupations which

show small numbers of deaths.

MORBIDITY REPORTS FOR NOVEMBER.

The most striking feature of the morbidity reports for November is the marked diminution in the number of cases of typhoid fever and the increases in the number of cases of smallpox. Typhoid fever dropped from 284 cases reported in October to 124 reported in November. Nearly one half of these cases were reported from San Francisco and Los Angeles, which would tend to show that the disease was contracted in the rural districts of the State by vacationists, who developed the disease after their return to the city. Investigations made in the larger cities of the State prove conclusively that at least half of the cases in the cities are not of local origin.

It is usual for smallpox to increase at this time of the year. There is small doubt but that the colder weather and the consequent indoor crowding with close personal contact are responsible for the increase to a large extent. Sixteen of the 64 cases were reported from Stockton, where the disease has been epidemic for several weeks. One death from the disease occurred in Stockton. Cases in Modesto, Richmond and Bakersfield are supposed to have been contracted from contact with

cases in Stockton.

Diphtheria and scarlet fever were not more prevalent during November than in October. Poliomyelitis is still reported from Humboldt County, but the epidemic seems to be about ended. Fourteen cases were reported in the State during November.

Typhoid Fever. Monthly Report for November, 1913.

Counites and cities	Number of new cases reported during month	Counites and cities	Number of new cases reported during month
Almeda County Berkeley Hayward Oakland Butte County Gridley Kern County Taft Los Angeles Inglewood Long Beach Los Angeles Pasadena San Fernando Watts Merced County Monterey County	1 1 20 1 3 	Sacramento County Sacramento San Benito County San Bernardino County San Diego County Chula Vista Oceanside San Diego San Francisco Santa Clara County Palo Alto Stanislaus County Sutter County Tulare County Exeter Yuba County Wheatland	$\begin{array}{c} 6 \\ \hline 2 \\ 1 \\ 3 \\ 28 \\ \hline \\ \hline 1 \\ 3 \\ 2 \\ \hline \\ \hline 1 \\ \end{array}$
Monterey Riverside County Hemet	<u>1</u>	Total	124

Smallpox.

Table Showing Distribution of Cases Reported During November, 1913.

	Number of new cases reported during month	Vaccination history of cases				
r		Deaths	Number vaccinated more than seven years preceding attack	Number last vaccinated more than seven years preceding attack	Number never successfully vaccinated	Vaccination history not obtained or uncertain
Alameda County						
Hayward					1	
Livermore	1					
Oakland						
Colusa County					-	
Contra Costa County						
Richmond	2				2	
Fresno County					_	
Fresno						
Imperial County						
Kern County						
Bakersfield	5					4
Los Angeles County	2					
Los Angeles	2 7				_	
Nevada County						
Nevada City					3	
San Francisco	. 3				3	
San Joaquin County						
Lodi					1	
Stockton	. 16	1			16	
Santa Clara County	. 4				4	
San Jose	. 1					
Santa Cruz County						
Santa Cruz				. 1		
Stanislaus County						
Modesto						
Tulare County	. 1				1	
Totals	64	1	1	1	54	

Poliomyelitis (Infantile Paralysis).

Monthly Report for November, 1913.

Counties and cities	Number of new cases reported during month
Humboldt County	
Eureka	
Ferndale	
Los Angeles County	
Los Angeles	
San Diego County	
San Diego	
Total	1

Epidemic Cerebro-spinal Meningitis.

Monthly Report for November, 1913.

Counties and cities	Number of new cases reported during month
Alameda CountyOakland	
Los Angeles CountySan Francisco	
Total	

Scarlet Fever, Measles, Diphtheria, Dysentery, and Other Diseases Notifiable In the State.

Monthly Report for November, 1913.

	Disease	Total number of new cases reported during month
Scarlet fever		228
Dysentery		
Erysipelas		1
German measles		
Glanders		
Leprosy		
		_
D .		0
D-1-!		
		4
		0